

PATHWAYS

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Joys & Explosions—Teachers Versus Children

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Education is the process of building the personality of a child; it is not just acquiring the 3 R's—Reading, Writing and Arithmetic. A healthy personal and social development of the child is far more important than anything else. Moreover the academic growth of a child largely depends on his/her emotional growth. Motivation for learning, motivation for higher achievement, self-confidence, self-esteem are important emotional factors which will help a child for improving the quality of life. Spontaneity and creativity, are generally affected by emotions and feelings of a person. All children, fortunately, come with a lot of spontaneity, curiosity and creativity to the school. However, by the time they finish schooling, unfortunately, these wonderful human qualities are curbed to a great extent. Many of them, though academically somewhat good, they remain as bookworms and hence failures in real life situations.

One good thing is that we teachers are capable of helping of these children to grow as successful human beings with self-confidence, positive self-image and self-esteem. We are capable of developing their curiosity and creativity; we can promote their motivation to high levels towards

positive achievements. We can also help them to acquire healthy social behaviours and social relationships.

How do we achieve this great task is a question we have to ask ourselves. What are the skills that we need to acquire in ourselves? What are the most important skills?

In the month of November '93, in a workshop conducted by the O.M.E.P. at the S.N.D.T. University, Bombay, few teachers and teacher educators dwelt on these questions and this theme of inter-relationships in some depth. We felt that it is the classroom climate that plays an important part in building up the personality of a child. If a child lives in a positive, success-oriented and humane climate he/she learns to be positive in his outlook in his life, will become achievement oriented, and relate with others positively. These values cannot be achieved unless the child experiences them in his day to day life.

The positive climate of a classroom depends on the positive interactions of the teacher, undoubtedly. However the fact is that we teachers are faced with a variety of situations

in the classroom which evoke positive or negative feelings in us, like, when a child presents a neat work, when a child obeys an instruction, when a child does not obey a norm/instruction, when a child distracts the class during a lesson, etc. But our responses—overt and covert; verbal and non-verbal—to these situations contribute significantly to the classroom climate. If this interaction is negative or authoritative, we get an oppressive climate in the classroom, which thereby suppresses the healthy emotional growth of the child. On the other hand if our interaction is positive, even when situations are negative, the classroom climate is healthy. This simply does not mean that we teachers have no right to have negative feelings. Negative feelings by itself is neither right or wrong. Feelings are a part of everyone and we cannot do anything to stop it and we need not do it. But the manner of expression of these feelings, is that which creates a classroom climate. This expression of feelings can be definitely modified in order to build positive relationships.

An attempt was made by the participants of the seminar to look at various classroom situations which are negative and positive and tried to find ways of expressing these feelings in a positive way. Before we see what was the outcome of this attempt, let us see how the teacher could achieve this—

—This could be achieved by the teacher in her everyday interaction with the children, through her speech and action.

A teacher has to keep in mind in her verbal communication with the children the following:—

1. State suggestions and directions in a positive rather than a negative form. A suggestion is one that tells the child what to do rather than what not to do.
2. The effectiveness of a suggestion/direction depends mainly on the timing. A suggestion given too soon will deprive the child a chance of experimentation and

problem solving, and, a suggestion too late may have lost any chance of being successful.

3. The effectiveness of a suggestion/direction also depends on the tone of voice of the teacher. The teacher has to use words and tone of voice which will help the child to feel confident and reassured. A quiet, firm manner of speaking conveys confidence and reassures the child. The effective speech is simple, direct and slow.
4. The suggestions/direction will turn out to be more effective by reinforcing them whenever necessary. These need not be the repetitions of the same directions in the same way. We must find various techniques for the attainment of the same behavioural change.
5. The success of modifying an 'undesirable' behaviour does not depend on methods which may lead to loss of self-respect such as shaming or labelling—'naughty', 'bad', 'selfish' etc. There are reasons why a person behaves as he does, reasons why patterns of reactions are established. Therefore, we cannot blame an individual for his behaviour. We may see his behaviour as undesirable and unacceptable and we may try to change it. But we accept and respect the child as a person.

Hence the teacher has to eliminate the destructive patterns in use, such as gestures, expressions, tone of voice as well as words that convey the impression that the other person should feel ashamed of himself.

A teacher could in addition keep in mind, the following:—

6. When a child is involved in an 'undesirable' action, *redirect his action to action which will be of equal interest and value to him and relieve his pent up energy.* For e.g.: when a child is indulging in a physical

fight with another child, the teacher could redirect his action by suggesting him to bang on the desk/fight with the doll, until his energy is expended.

The limits, when necessary, should be clearly defined and consistently maintained. Whenever a child involves in a behavioural action that comes in the way of his own safety and well-being and that of others; limits need to be clearly set up and communicated, and, maintained consistently.

7. For a healthy growth of the decision making process in the child, give the child a choice whenever possible, however only when you intend to leave the choice upto him and allow him to act according to his choice.

Choices are important for a child's growth. As a child matures, he learns to make more meaningful choices for life. So, we must be careful to avoid offering him a choice when we do not really mean to allow the child to make a decision.

8. Comparing a child with another can be very dangerous. Avoid pointing out another child as an example for desirable behaviour/action—the child might hate the other child and the teacher for this!

Keeping these in mind, the workshop aimed at preparing the positive directions/reinforcers in various situations that normally evoke positive and negative feelings. These situations could be of 3 types:—

1. When faced with 'undesirable' behaviours such as untidiness, talking in the class when a lesson is on, fighting with one another etc.
2. When faced with situations related to achievements or skills with the students, such as sharing, reciting rhymes, correct expressions, good drawing, good organisation, neatness etc.
3. When faced with situations in which *effort is put in by the child*, though, the result is not satisfactory, such as reciting rhymes, story telling, group play, neatness trying to rectify errors, attempt to modify negative behaviours etc.

Before, we look into the positive directions/reinforcers that were produced as a result of this workshop, which you can read in the next issue of pathways, it will be a good idea if we ourselves make a reflection of our own interaction patterns with the children, keeping the above mentioned guidelines.

Till then

HAPPY REFLECTING

Reference: KATHERINE READ—THE NURSERY SCHOOL.

I AM THE CHILD

I am the child
All the world waits for my coming
All the earth watches with interest to see what I shall become
Civilization hangs in the balance
For what I am, the world of tomorrow will be
I am the child
I have come into your world, about which I know nothing.
Why I came I know not;
How I came I know not.
I am curious; I am interested
I am the child
You hold in your hand my destiny.
You determine, largely, whether I shall succeed or fail.
Give me, I pray you, those things that make for happiness.
Train me, I beg you, that I may be a blessing to the world.

from "Child Appeal", Mamie Gene Cole

PLAYFUL FRACTIONS!

A Cooperative Learning Approach in Teaching Fractions

—JHILMIL

Fraction is a theme which is usually considered by some to be difficult, boring and frustrating, for teachers and children. However, this same theme could be made stimulating, thought provoking, playful and at the same time meaningful and exciting to the children. It may sometimes lead the teacher to discover new insights into the teaching methods as well as concepts.

In my attempt to teach fractions in Standard III, I tried out some activities through cooperative learning strategies. The first thing that I thought of was grading the fraction concepts needed for class III into simple levels, which will gradually lead to higher concepts.

A few samples of my attempts are given below:—

In all these activities the children are divided into groups of 4 or 5. Each one in the group is given an assignment—

1. Messenger—who is supposed to collect materials from the teacher and returns the materials back to the teacher, any other communication with the teacher or other groups is his responsibility.
2. Coordinator/Facilitator—who is supposed to make sure that every member in the group gets involved in the activity/discussions.
3. Recorder—who is supposed to record and report the results of the activity to the whole group.
4. Evaluator—who is supposed to evaluate the groups work.
5. Encourager/supporter—always tries to find out ways and means of helping everyone to feel successful in the work.

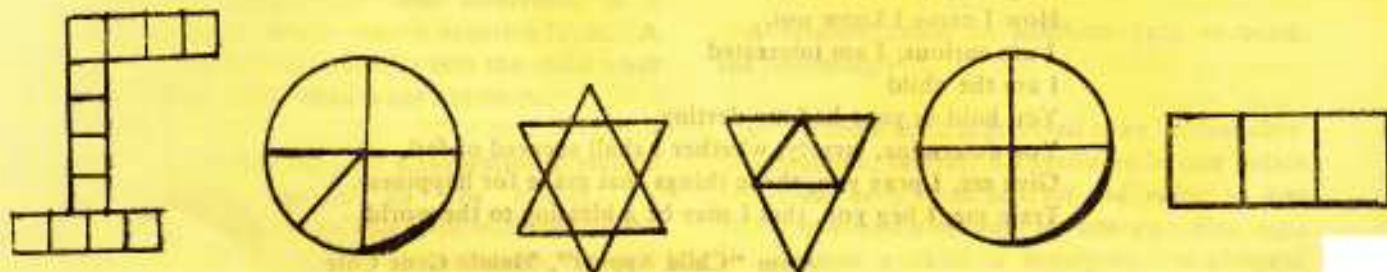
1. INTRODUCTORY ACTIVITY

Objective:

The children will be able to identify equal and unequal parts.

Materials:

Different worksheets with different types of figures, divided equally and unequally like,



Activity:

1. Every group is given one activity sheet containing a number of pictures divided into equal and unequal parts. Every activity sheet could contain a different set of pictures.
2. The children are instructed to carefully observe each of these pictures and state which of them are divided into equal parts and which of them are divided into unequal parts.
3. Ask the children as a group to discuss why each of this figure is equal or unequal and fill the chart given below the figures, as a group.
4. Let every member of the group sign below the chart.
5. When all the groups have finished, the recorder of the groups shows the work-sheet to the whole class and explains which figures are equally and unequally divided. He also gives the groups reasons for this.
6. After finishing one work-sheet, the group can take up a different work-sheet or exchange their work-sheets with another group and repeat the activity.
7. It will be good to change the roles either after each exercise or after one type of activity, giving chances of changing roles.
8. Awards, in the form of points, could be given for each right figure, to the groups.

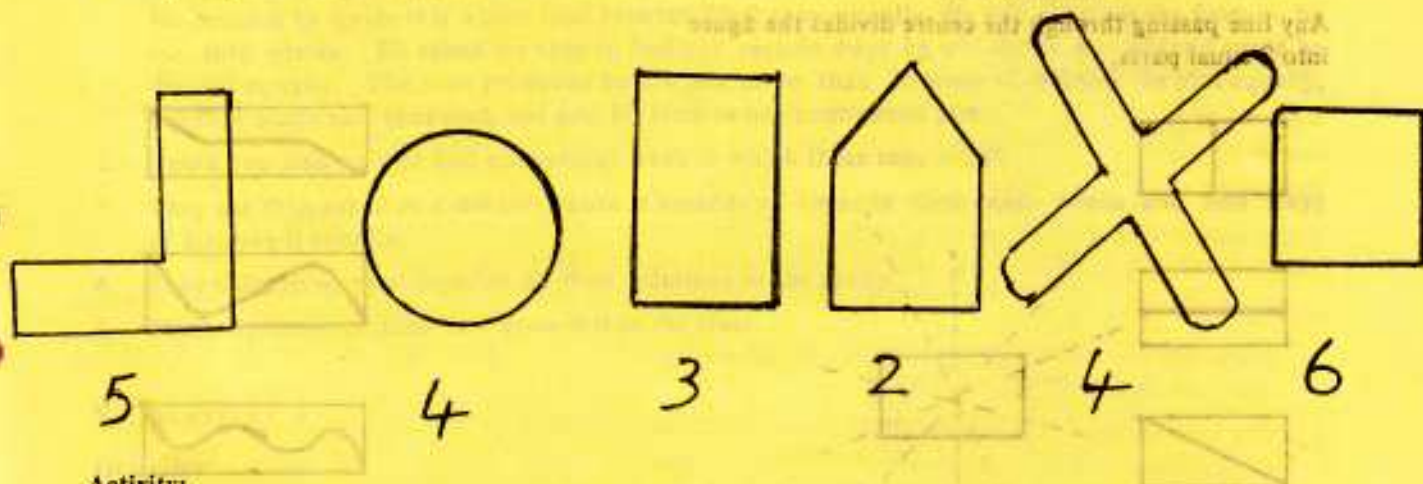
II. ACTIVITY 2

Objective:

The child will be able to divide a given figure into given number of equal parts.

Materials:

Different work-sheets with different types of figures and the number of parts to be divided mentioned below, like,



Activity:

1. Every group is given the work-sheet.
2. Every member in the group is asked to copy these figures in the note-book. The size of the figures could be drawn bigger, keeping the shapes same.

3. Ask the children to find out ways and means of dividing each figure into equal parts, as the number mentioned below the figure.
4. Allow them to discuss the ways of dividing them equally. Some times, some children may have to redraw the pictures because they may go wrong in the equal division.
5. Ask the group to produce a collective answer for each of the figure and discuss the justification for equality of the parts.
6. The recorder presents it to the whole group.
7. This activity could be repeated with various work-sheets.
8. Awards, in the form of points, could be given for each right figure, to the group.

III. ACTIVITY 3

Objective:

The children will experience that one figure could be divided equally into 2 parts in a variety of ways.

Activity:

1. Every child is asked to draw a number of rectangles in their books.
2. They are then instructed to divide these into 2 equal parts into as many ways as possible.
3. They are asked to then share in their group the findings of each one.
4. The recorder will make a copy of all the varieties of divisions and present it to the whole class.
5. The group which is capable of giving more of such divisions in the winning group.

Note for Teacher:

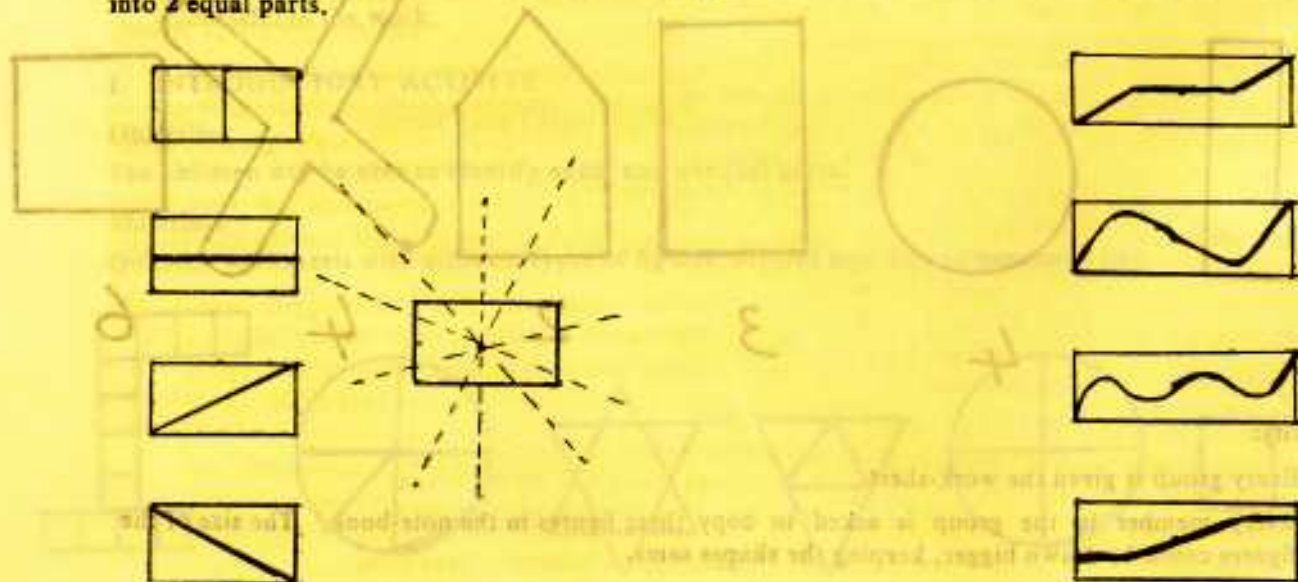
The teacher may have to give clues to different groups to open their imaginative thinking.

CLUES FOR TEACHER

Common Ways

Any line passing through the centre divides the figure into 2 equal parts.

Creative Ways



This activity can be repeated by giving different other shapes such as circles, squares, triangles and other symmetric figures.

Some samples of extra ordinary divisions are given below:—

IV. ACTIVITY 4

Objective:

The children will be able to appreciate the need of dividing a whole into equal parts and realize that there are a variety of ways of dividing such a whole into 2 equal parts.

Material:

A slip of paper on which a plan of a rectangular plot of land having 16 equal sized ricse fields, as shown below:—



Activity:

1. The teacher narrates a story as:

A man had a huge plot of land, consisting of 16 equal sized fields, as shown in the slips of papers. He decided to divide this whole land between his 2 sons, equally. He did not want the fields to be cut into pieces. He asked his sons to find out various ways by which this plot of land could be divided equally. The sons produced before him more than 10 ways of dividing the plot equally, but they made sure that each one gets his land as one continuous piece.

2. Could you also try and find out various ways in which these sons tried?
3. They are then asked to draw this figure a number of times in their note books and find ways of dividing it equally.
4. They collectively pool together all their solutions in the group.
5. Check up their solutions and present it to the class.

V. ACTIVITY 5

Objective:

The children will appreciate that the value of the fractions is dependent on the whole.

Materials:

5 different sizes of paper, either all rectangular or all circle or all squares.

Activity:

1. The group is asked to show half of each paper by folding each one.
2. The children are asked why they are all halves but they are not equal.
3. The group is asked to discuss and the recorder is asked to justify their answer for the group.

VI. ACTIVITY 6**Objective:**

The children will be able to relate a fraction numeral with a fractional part.

Materials:

8 cards of 3×2 " size for each child.

Activity:

1. Children are made to sit in groups of 4. Every child is provided a set of 8 cards.
2. Every member in the group is asked to write different fractions on 4 of their cards.
3. Ask each member to draw the representations of these fractions on the remaining 4 cards. Thus, the group has now 32 cards, 16 of them with the fraction written and 16 of them with representations drawn. The representation fraction part of the figure is shaded.
4. All these 32 cards are put together and shuffled, distributed to the 4 of them i.e. each one will have a mixture of 8 cards.
5. The starter of the game pulls out one card from the person who is sitting on the right. He checks up whether that card will match with any of his cards i.e. fractional numeral and representation. If they match, he will keep that pair in the center for all to see. In other words he discards. If he cannot match with any of his cards, he keeps it. Now the one on his right pulls out a card from the one on his right and do the same as above, and the game goes on, till one person discards all his cards and hes' the winner.

VII. ACTIVITY**(a) Objectives:**

The children will be able to recognise a representation of the fraction and relate it to a fraction numeral. They will also be able to represent the same fraction in different ways.

Materials:

4 or 5 sets of 8 cards of 3×2 " size, each set having fractions written on the 8 cards for e.g. $1/4$, $2/3$, $5/8$, $3/4$, $1/2$, $3/8$, $1/3$, $7/8$. Thus, there will be 4 sets of these fractional cards.

Activity:

1. Each set of 8 cards is distributed in the class, row-wise, so that every child in the row has at least one card.
2. The teacher draws the representations of any of these fractions on the black-board or she shows a flash-card with the representations of one of these fractions.
3. Immediately, the 4 children who possess this fraction card go to front of the class and show their cards to the class.
4. Now, the teacher can ask all the children to draw this figure in the book and draw a different way of representing the same fraction, which is then checked by the teacher.

(b) FRACTION DOMINOE

Objective:

The children will be able to recognise and relate the fractional representation with the fractional numeral.

Materials:

A set of fractional dominoes as shown below:—



Each card is about 2×4" and divided into 2 parts.

A fraction is represented on the half and a different fractional numeral is written on the other half.

Activity:

1. One set of such dominoes is provided for each group.
2. The teacher asks to arrange them as shown.

NOTE: This game can be played at higher levels of complexity for e.g. : using sets of cards as shown.

and so on.

When these were tried in the classroom, I found a lot of involvement on the students part. It helped me to evaluate the learning of all of them as the activity was going on. Actually, I found myself enjoying fractions as much as the children.

I am sure many of you will be able to create better ways of teaching various concepts and give us a chance to share with you.

Encouragement from a good teacher can turn a child's life around.

A student learns most from teachers who are learning themselves.

Children are the best teachers of creativity, persistence and unconditional love.

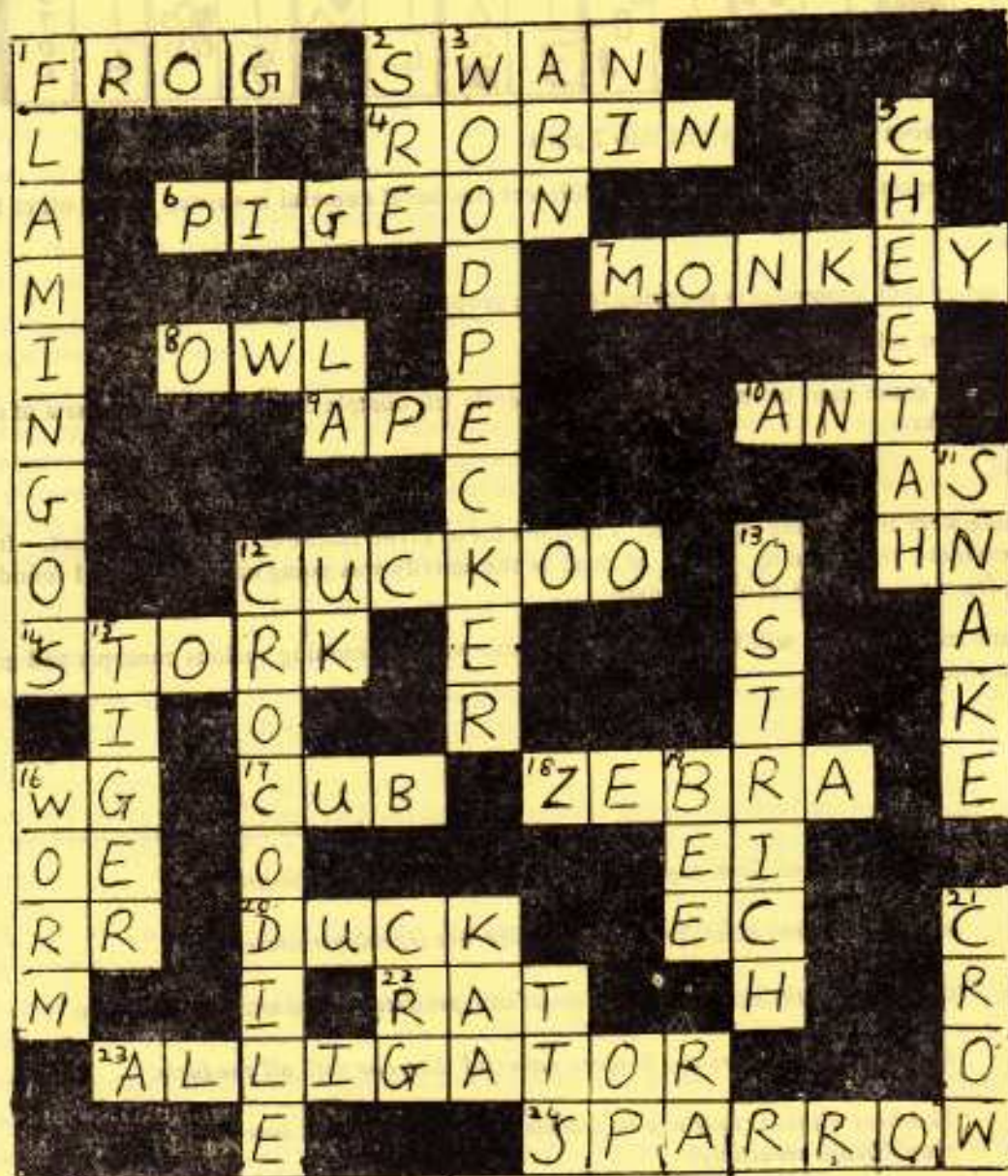
A person with big dreams is more powerful than one with all the facts.

Teachers without creativity in teaching always know just how other teachers should teach creatively!

Language Development Through Cross-Words

OBJECTIVE : The children will able to discriminate and describe the living beings by making the clues for the crossword puzzle.

ACTIVITY : Provide one work-sheet as given below, to every group of 5 children each. Ask them to formulate clues for the crossword. Help them with the following guidelines crossword puzzle here.



(Continued on page 13)

Towards A Better Society—Schools' Role

School is a sub-system of the social structure, and as such whatever that is happening in the society has an impact on the school, and thereby the children. If the society has to progress, this sub-system, i.e. the school, is the most powerful instrument to bring about that change. Hence, the school has got a responsibility to cultivate among the children, values such as social consciousness, social justice and commitment. These values cannot be taught by mere verbal communication. The children have to experience the reality and work for the changes needed, by their own involvement in solving real problems which he is capable of.

We noticed that St. Michael's High School, Patna is putting a lot of effort in this area. Here is a report of some of the Reach-out activities, sent to us by Fr. Robert Menezes, S.J.—the PRINCIPAL.

REACH-OUT ACTIVITIES

Responding to the need to make our school more open to the ambient community. St. Michael's High School, Patna switched over to Hindi medium of instruction in 1979 and reserved a certain percentage of admissions for the students of the less privileged class of the society. Ever since there has been a change in the clientele climate and the very ethos of the school.

During the last year and a half, we have initiated some new but simple ventures to expose our students to the needs of literacy, concern for environment and care of the community and the school had involved itself in the ambient community through various "REACH-OUT ACTIVITIES".

Labour Day

Keeping in view the dignity of labour, our students on 1st May 1992, deviated from their routine classroom learning and took up manual labour for a change. The seniors formed a human chain from the school gate to a kilometer in the neighborhood followed by sweeping, cleaning and levelling of the road. The local mukhiya, and few important persons of the community extended their support by way of

equipment, truck, etc. A few local youth joined our seniors in the road cleaning. The juniors confined themselves to campus cleaning. For many students it was a first experience of doing manual labor in public, which their social status does not permit. They also had to face some cynicism of the public while working. This year about 13 schools of the neighborhood also joined us in the manual labour. We also had more local youth involved in this endeavour. This activity has become an occasion to celebrate community concern and unity in the context of fragmentation of society due to religion and social status.

Informal Classes

Thirty boys and girls between the age of 10 to 15 years were kept busy with various literacy programs—like giving them basic skills in reading, writing, public speaking and games. This was the end-result of a small meeting of some prominent personalities of the community where they asked as to what extent St. Michael's can render services in the sphere of education. We are still exploring various possibilities of our greater involvement in literacy drive for children of 6—14 years.

Remedial Classes

Most of the neighbourhood schools do not have trained teachers, extra/co-curricular activities and games facilities. Nearly one hundred needy students from classes 1 to 4 of the neighbourhood took advantage of these remedial classes. Besides, they were also given opportunity to develop other latent talents. It is very encouraging to notice more girls in these classes in the context of a society which gives less encouragement for the education of women.

Joy in Learning Classes

Since the school facilities were made available to needy students, many parents sent their children to our campus. As a result, nearly seventy tiny-tots between 5-6 years of age were exposed to the "JOYS OF LEARNING" and of course education in general.

The above three classes were conducted by five women of the community and appropriate stipend was given by the school. This year our students of class XI are giving ten to fifteen hours of guidance in studies to these students. Thus the class XI students are being exposed to the learning problems of these students are being exposed to the learning problems of these students, their social realities, etc. There is a sense of joy and meaning in our students through this involvement.

Neighbourhood Schools

Faced with the constraints of the number of needy students of the community that could be admitted to our school, and the poor standard and lack of infrastructure in the neighbourhood schools, our school initiated contacts with the principals of these schools. There were many fears, suspicions as to why a big school should initiate contacts. After a few meetings we were able to convince and tell them that we wanted just to act as a CATALYST and empower them so that they could instill professional "EXCELLENCE" in their staff/students and teaching too. Some of the programmes conducted were:

1. Staff Development Seminar for seventy-eight teachers in "TEACHING METHODOLOGY" in English, Hindi and Mathematics for KG and Class I.
2. Inter-school Hindi Elocution Competition. Eighty students of 20 schools did participate. This year there was a qualitative difference in the elocution.
3. On-going Professional Growth for Principals.
4. Inter-School Sports Meet in which nearly nine hundred students actively participated.
5. Painting Competition and Cultural Programmes on National Integration and Community Harmony. About one hundred students took part.
6. Nearly three hundred students joined our high school students in their "Labour Day" programme on road cleaning.
7. Staff Development Workshop on teaching Hindi and Social Sciences in the Primary classes

Vocational Training

In the community we noticed that many needy youth were looking for jobs and specialized training. Thus last year twenty-two needy post-matric students completed a five-month training programme in Spoken English, Shorthand/Typing, Foundation Courses in Computer and other competitive subjects. This programme was specially tailored to students applying for jobs and appearing in various competitions. This course is being conducted by our school staff members. This year the number of students in this course had doubled and there is greater enrollment of young women.

Women's Empowerment

This year we made a special attempt to reach-out to women of the neighbourhood. So we called the mothers of the students attending the various classes in the evening and discussed what

their needs were. Health education was one of their priorities and thus with the help of the community health team of Kurji Holy Family Hospital we had three sessions on health education. We have also conducted one session on social awareness and thus we hope to have periodic sessions with women to focus on women and social issues of the community. Also with the help of some sisters, we are extending education and financial assistance to house maids to write the Class X exams through National Open School of which our school is an accredited institution.

Environmental Awareness

A good number of our students are members of "TARU MITRA" an organization for the cause of environment protection. These students with the guidance of our staff on several occasions planted trees along the roads, took

part in cleanliness activities, protested in the form 'HUMAN CHANGE' against non-repairs of roads and cutting of trees which lead to frequent accidents and pollution. Thus we are trying to form an environment conscious/loving students.

Free/Low Cost Medical Clinic

We have done all the spade work to start this new venture in serving the needy sick of the community. This clinic will be served by our doctor parents and the alumni of the school.

Our aim is to have an healthy interaction between the school and the community. With these interactions we wish to communicate values that we stand for and provides opportunities of exposure to imbibe them too.

Robert Menezes

CONGRATULATIONS

Fr. Robert! we are sure, the children coming out of St. Michaels' will really be agents of social change.

We are glad to say there are many other schools also which are involved in similar activities. As and when we get it, we will share them in the PATHWAYS.

(Continued from page 10)

ACROSS

- 1
- 2
- 4
- 6
- 7
- 8
- 9
- 10
- 12
- 14
- 16
- 17
- 18
- 20
- 22
- 23
- 24

DOWN

- 3
- 5
- 11
- 13
- 15
- 19
- 21

Let there be a plenty of discussion while preparing the clues. Let the children prepare clues at their level of understanding for the same item—different children may give different clues which are correct. For e.g.

Frog: I croak when it rains. I lay many eggs at a time. My young ones are called tadpoles.

The teacher can prepare variety of such cross-words on various themes, in different subjects, at different difficulty levels.

So, HAPPY teaching, HAPPY playing and HAPPY learning!!

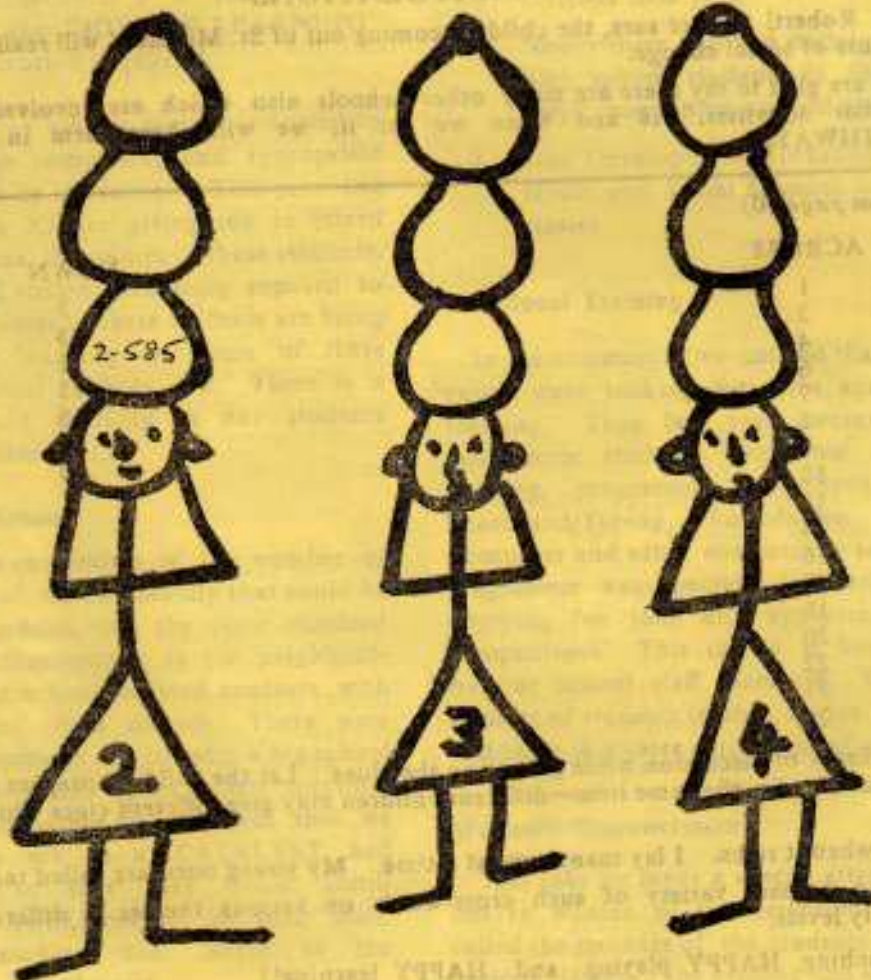
FUN WITH DECIMALS

— Mrs. Nair

Holy Child School
Delhi-110027

1. Sort out the following decimal numbers with the whole numbers 2, 3 & 4 and put them in the ascending order in each girls' pots.

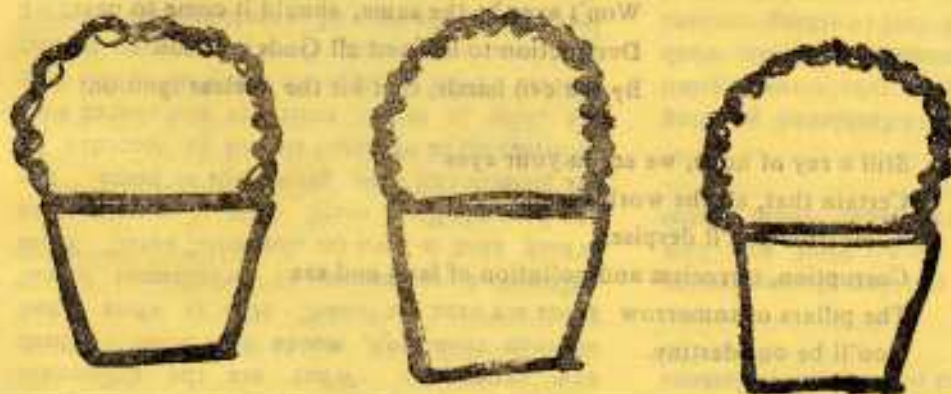
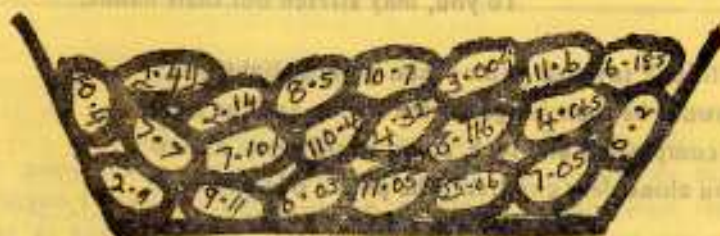
4.1,	3.35,	3.135,	4.01
2.585,	3.531,	4.001,	3.531
	2.85		



2. In the following figure: Colour the portion which is less than 1.5 red,
 Colour the portion which is more than 1.5 but less than 2.5 green.
 Colour the portion which is more than 2.5 but less than 3.5 blue.
 Colour the portion which is more than 3.5 but less than 4.5 brown.



3. Sort out the eggs from the unlike decimal baskets arrange them in the like decimal baskets.



THE PILLARS OF TOMORROW

by **Adrian Nicholas Browne**
St. Micheal Primary School
Prasad Nagar
New Delhi-110005

Children, you'll be men of tomorrow
The pillars of times to come,
Successful, polished and learned
Distinctly achieved by some:

Scientists, Teachers, Engineers & Doctors
Whatever, you choose to be,
Politicians, Leaders or Soldiers
Tomorrow holds your destiny:

Yet wherever you go or whatever you do
The pillars of tomorrow, and that's each one of you

Great hopes and expectations
From the people of this land,
For your strength and support
To you, may stretch out their hands:

They'll look towards you as their guiding light
And you'll be their judge, of the wrong and the right,
Your compassion and love, could wield every sorrow
By you alone dear children; The pillars of tomorrow:

The world in fear of a nuclear holocaust
Won't ever be the same, should it come to pass,
Destruction to life and all Gods creation
By the evil hands, that hit the nuclear ignition:

Still a ray of hope, we see in your eyes
Certain that, all the worlds' evils
Tomorrow you'll despise,
Corruption, terrorism and pollution of land and sea
The pillars of tomorrow
You'll be our destiny.